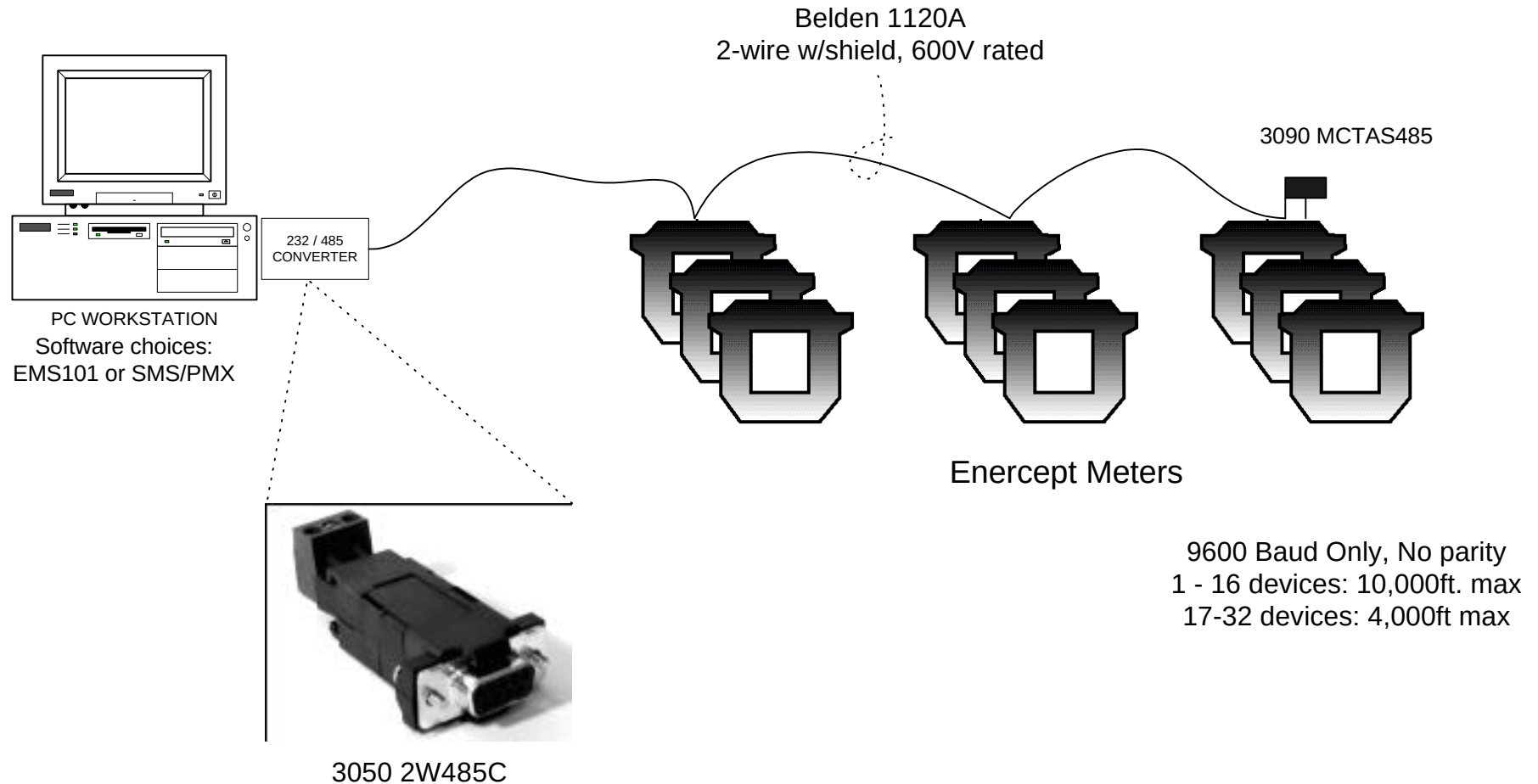


PowerLogic®

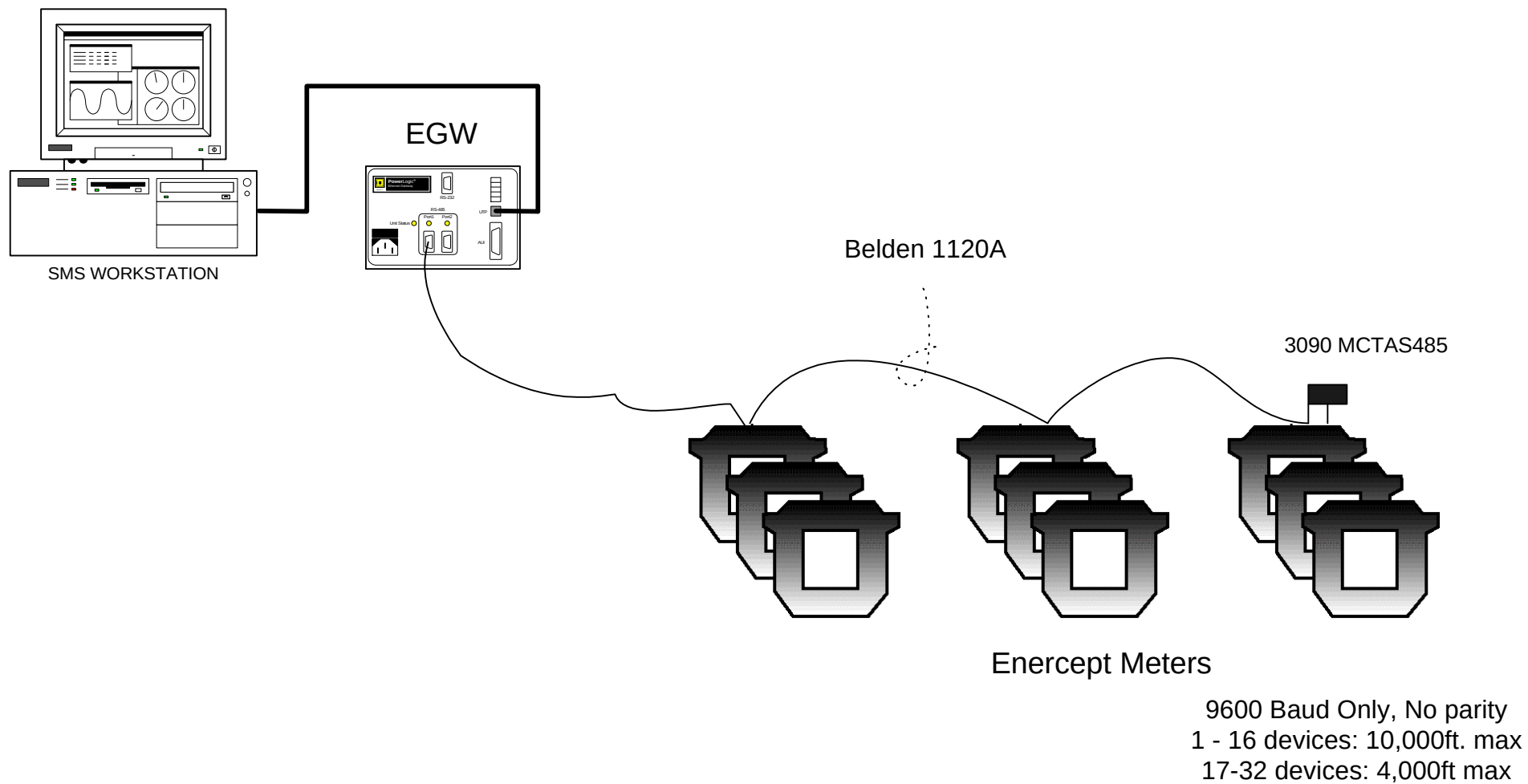
Enercept Meter

Application

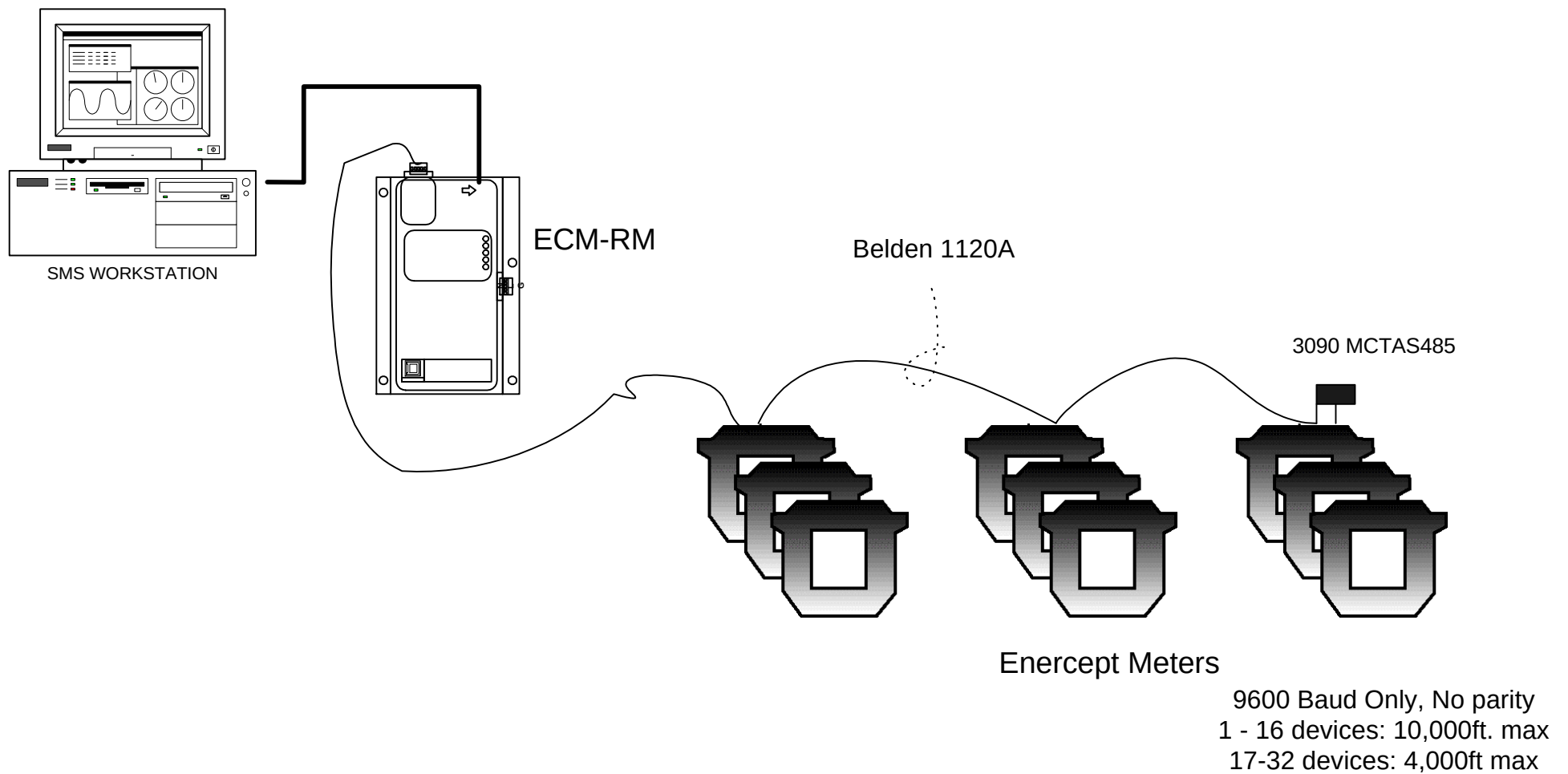
Drawings



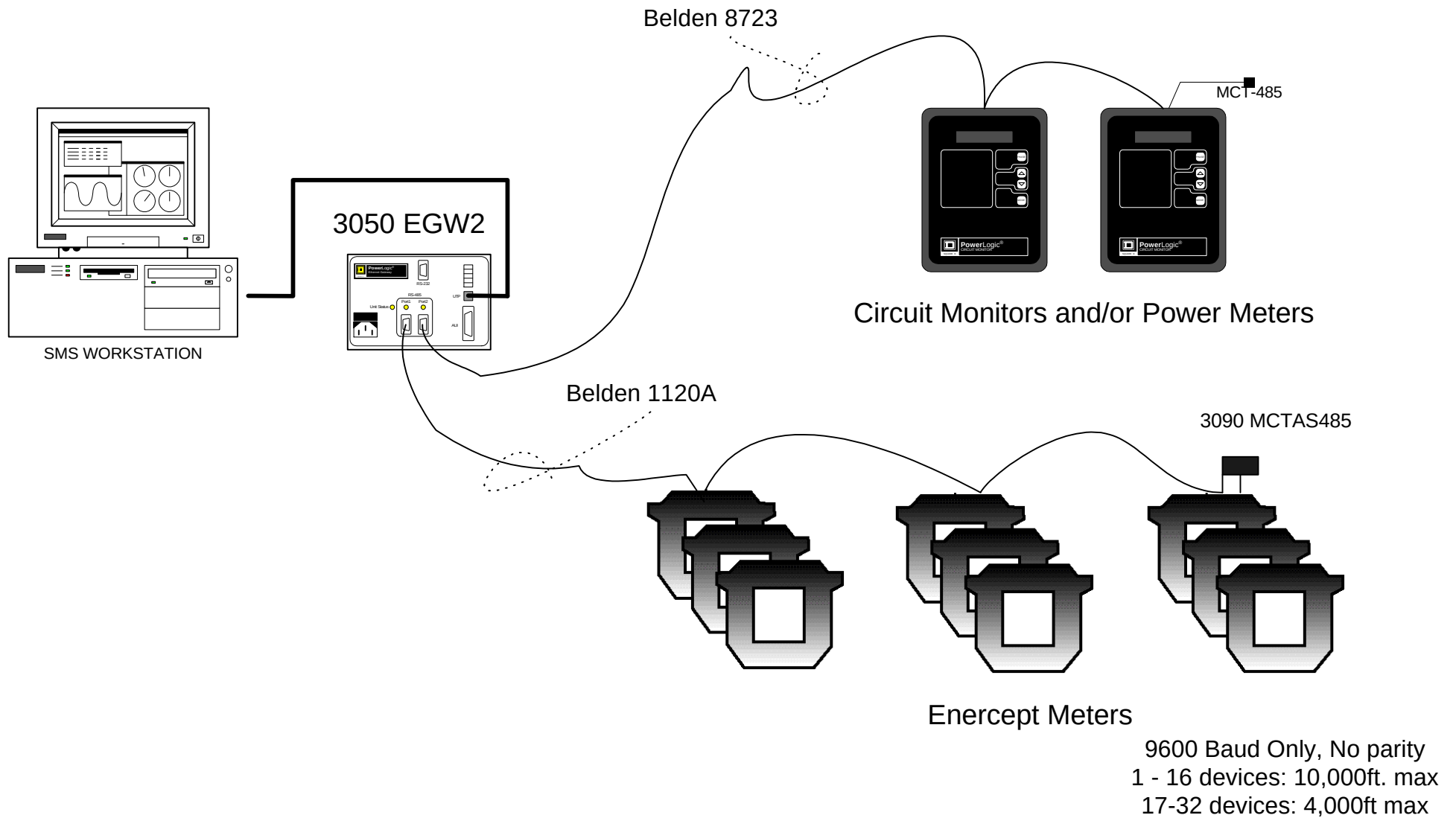
Direct PC connection with 2-wire Enercept Meter String



EGW Ethernet connection with 2-wire Enercept Meter String



ECM Ethernet connection with 2-wire Enercept Meter String



Ethernet connection with 2-wire & 4-wire String

PowerLogic System RULES:

Enercept Meters are 2-wire Modbus devices. Must use either a 3020EDI32 or 3020ENA485 to tie into a 4-wire PowerLogic string.

Address limitations for mixed mode strings (PowerLogic and Modbus protocols on the same string): Addresses 0 and 1 are off limits for the PowerLogic protocol devices (Circuit Monitors and Power Meters), Address 16 is off limits for the Modbus protocol devices (Enercept Meters). Two devices on a single RS-485 network cannot have the same address

Firmware for the Circuit Monitors must be 17.008 or above when included on a mixed mode string.

PNIMs supports only SyMax or PowerLogic protocol. PNIMs will not support Modbus or mixed mode. A direct PC connection using an RS-232 to RS-485 converter as well as either a PowerLogic Ethernet Gateway or PowerLogic Ethernet Communication Module do accept mixed mode strings.

Due to the proximity of the communication wire to the conductors being monitored, the recommended communication cable is Belden 1120A or equivalent (600V rating).

When using System Manager Software with Enercept Meters, the version must be SMS 3.1 or newer with support install for Enercept Meters.

Enercept Network Adapter (ENA) and Enercept Display Interface (EDI) RULES

Each EDI or ENA, no matter how many Enercept Meters are on the 2-wire string, takes up one electrical drop on the 4-wire string.

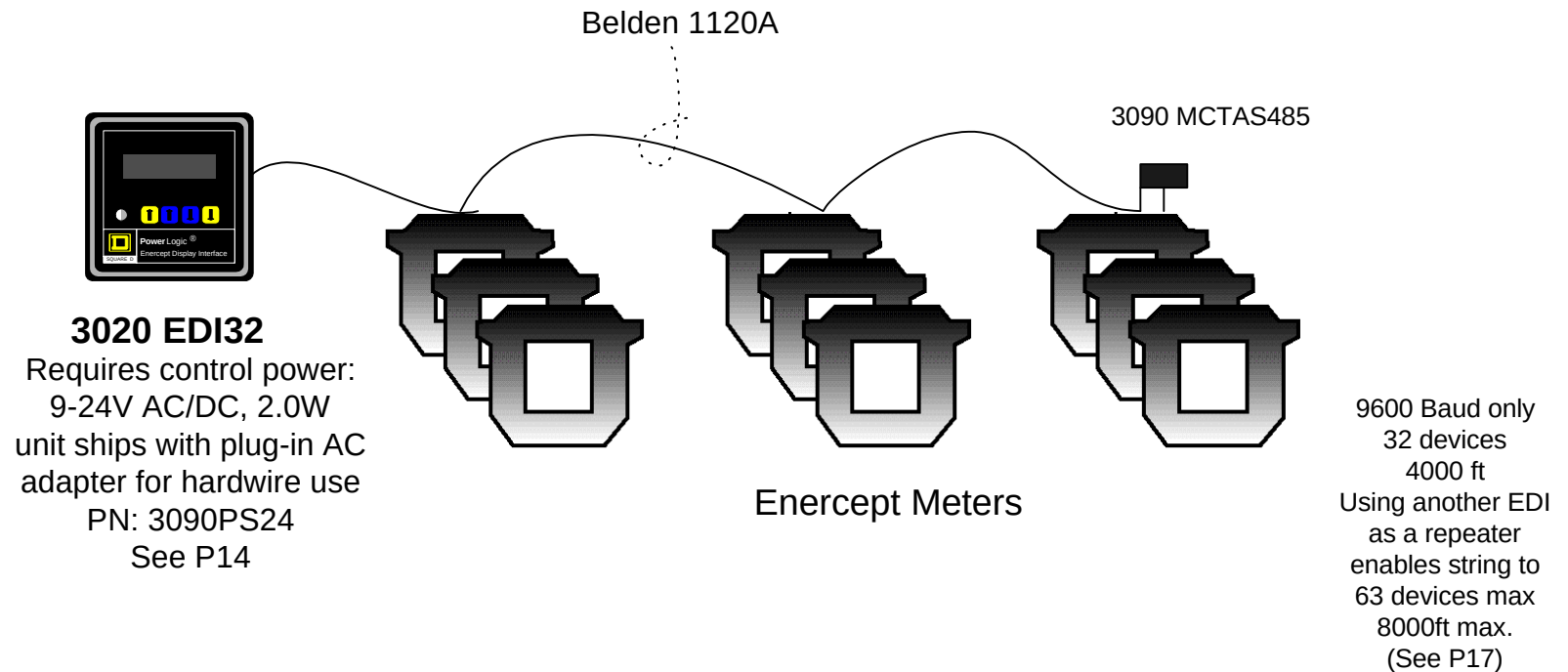
The ENA or EDI does not use an address.

Two devices on a single RS-485 network cannot have the same address.

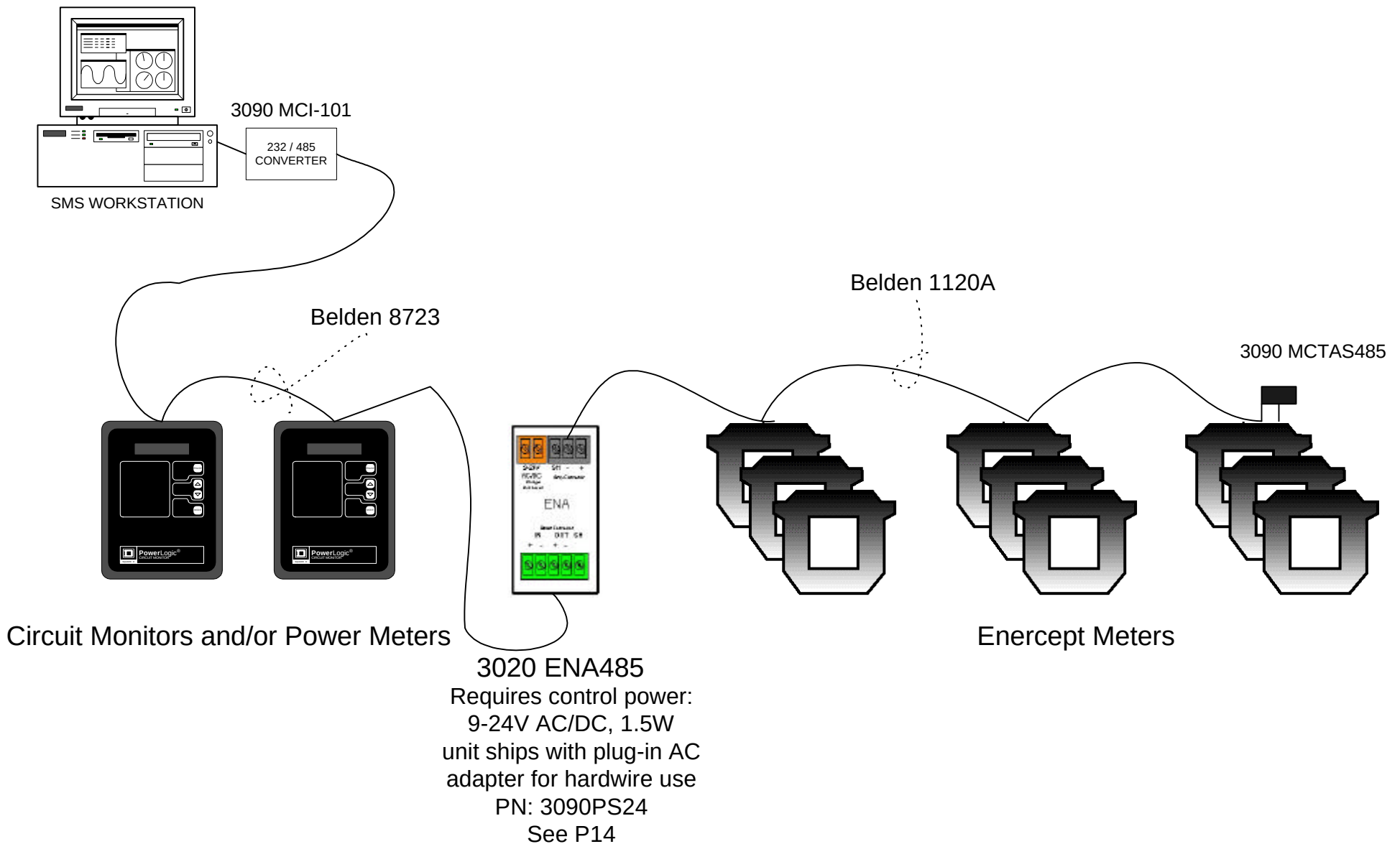
The EDI can be configured with an address offset. Valid offsets are 0, 64, 128, or 192. By utilizing the EDI's offsets, up to four Enercept meters can have the same address and still be uniquely identified by the master device. For example, an Enercept meter set to address 3 on a EDI with an offset of zero will respond to messages directed to address 3. Another Enercept meters set to address 3 on a EDI with an offset of 64 will appear to respond to messages directed to address 67. Likewise, Enercept meter 3 behind EDI offset 128 will appear to respond to address 131 and meter 3 behind offset 192 will appear to respond to address 195. The following table shows the valid combinations:

Enercept Address	EDI Address Offset	Apparent Modbus Address
1 through 15	0	1 through 15
17 through 63	0	17 through 63
1 through 63	64	65 through 127
1 through 63	128	129 through 191
1 through 61	192	193 through 253

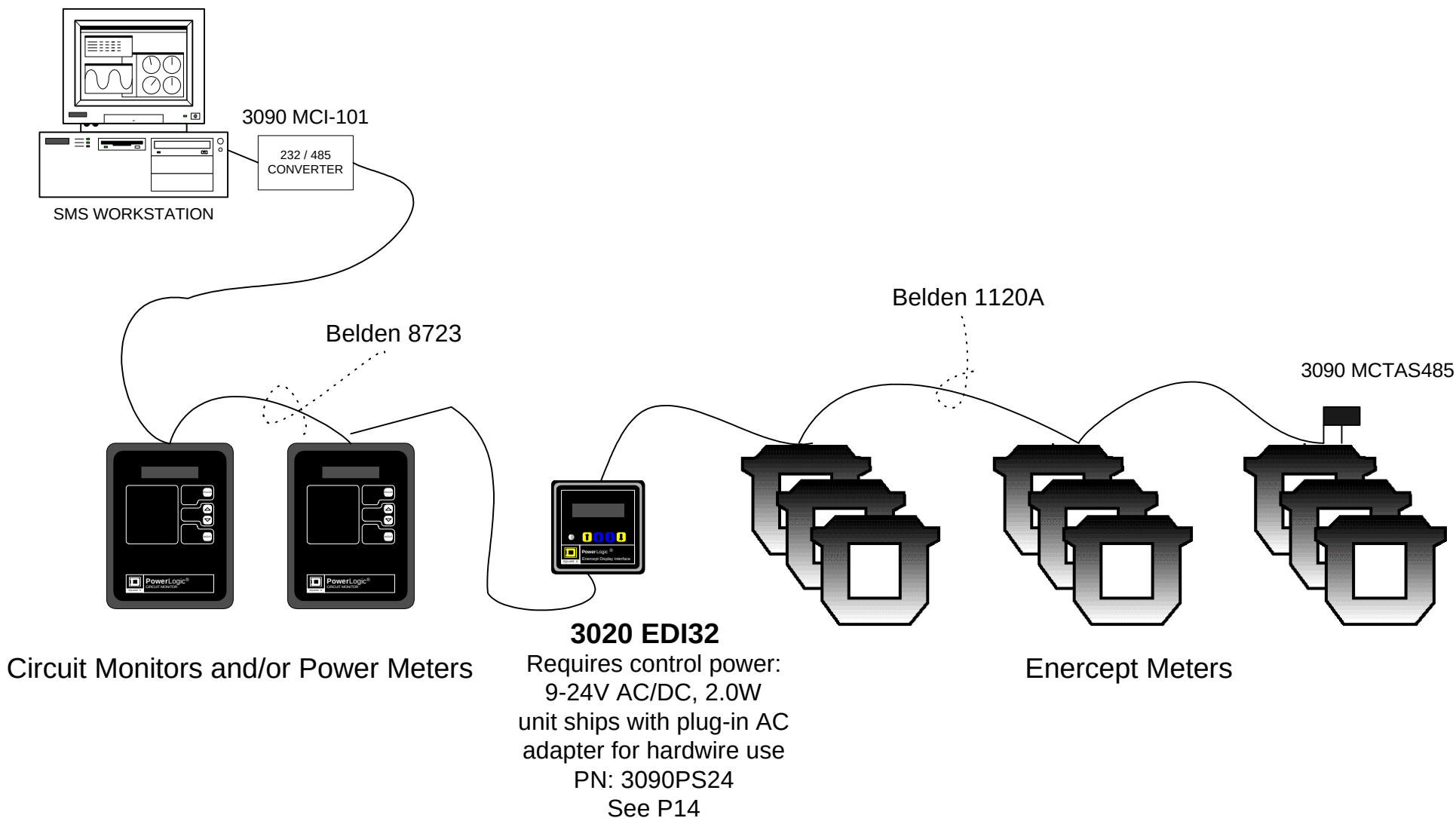
The ENA does not have offsets and therefore can only have addresses 1 through 15 and 17 through 63 on a single mixed mode RS-485 network.



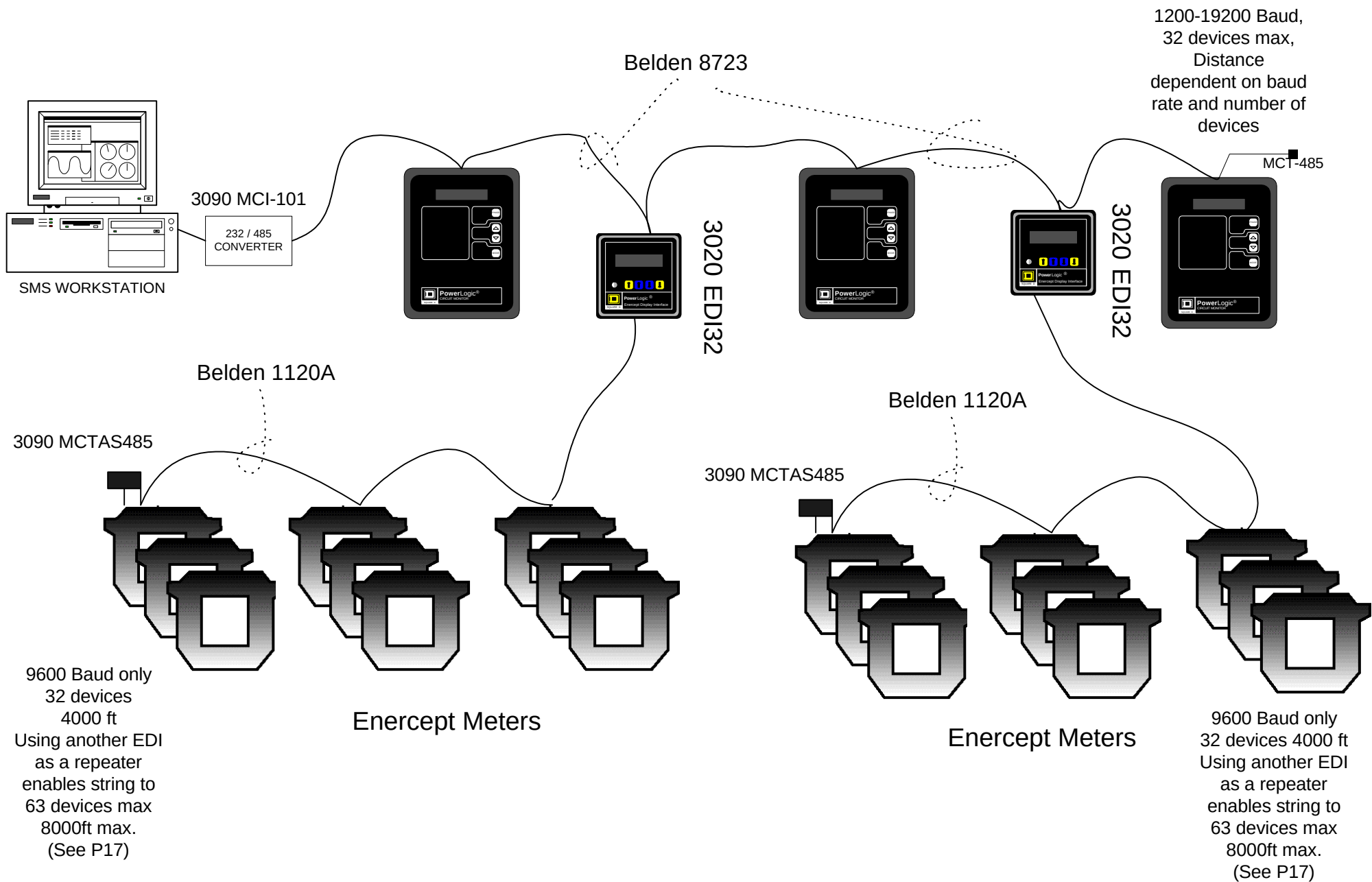
Standalone Enercept Display Interface to string of Enercept Meters



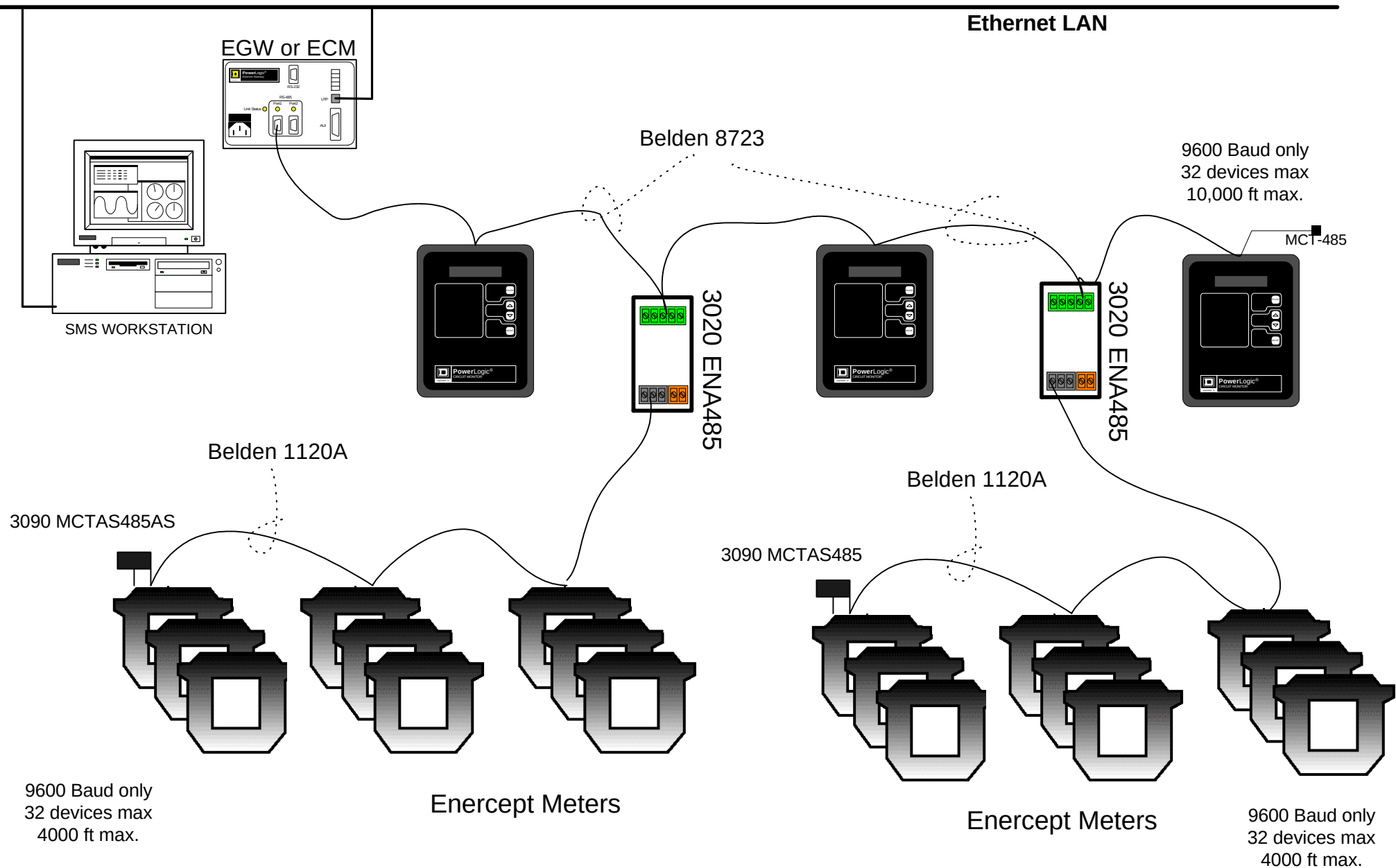
Direct PC connection with mixed mode string
using an Enercept Network Adapter



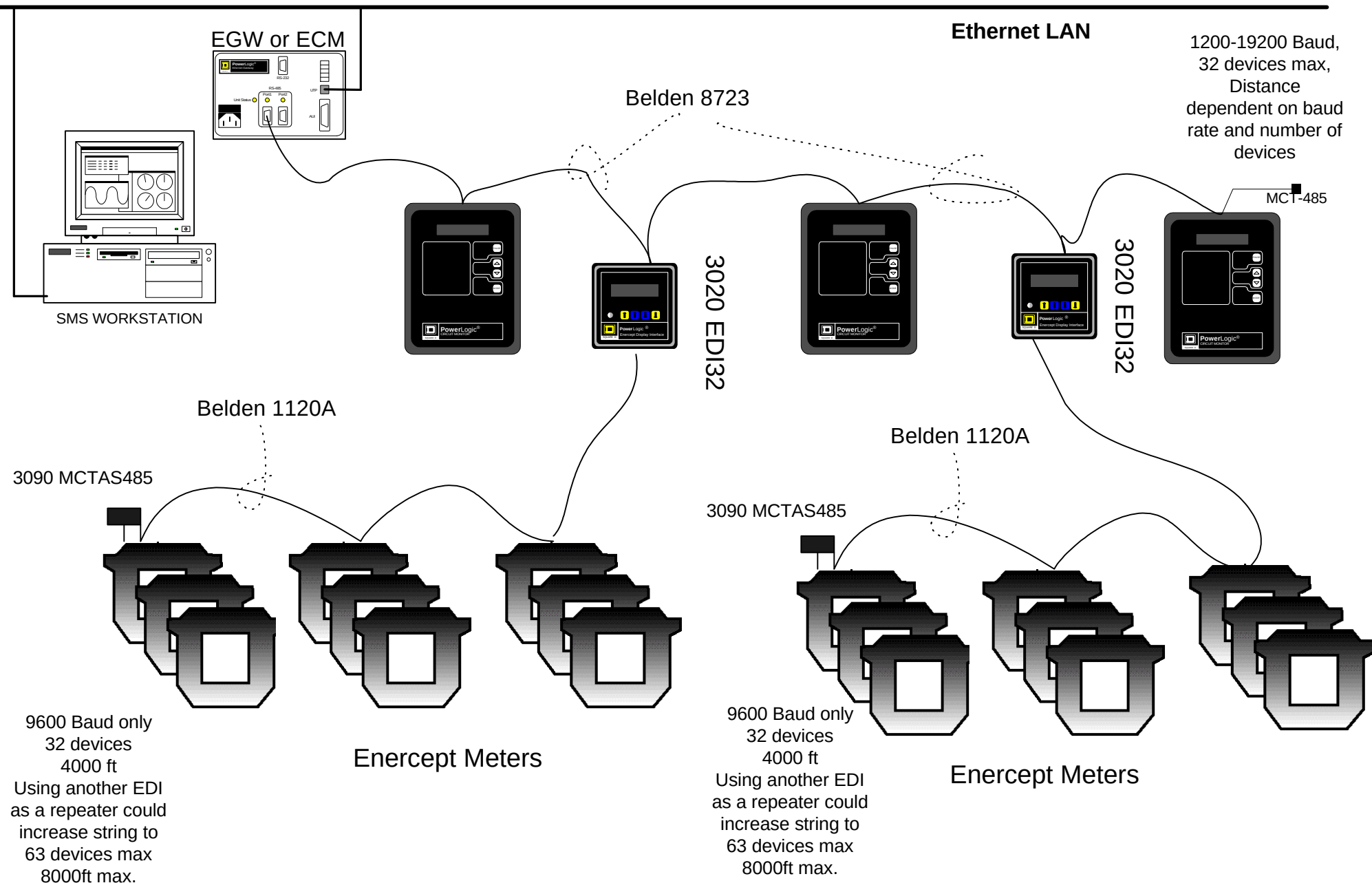
Direct PC connection with mixed mode string
using an Enercept Display Interface



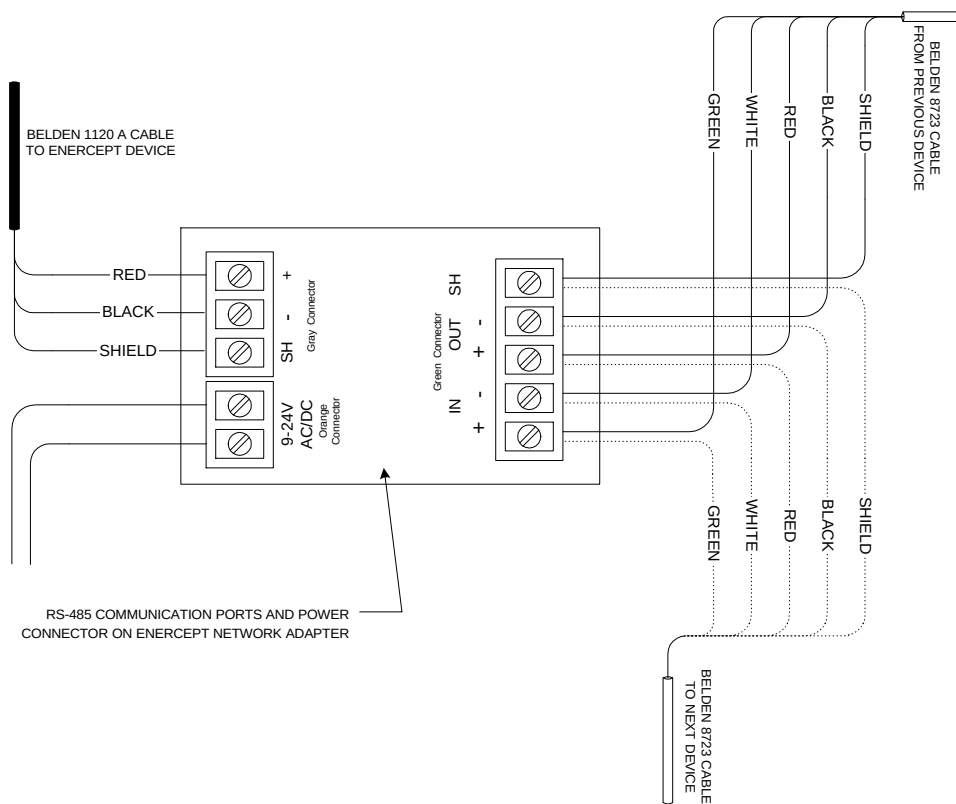
Direct PC connection with mixed mode string using a
"T-connected" Enercept Display Interface



Ethernet connection with mixed mode string using a
"T-connected" Enercept Network Adapter

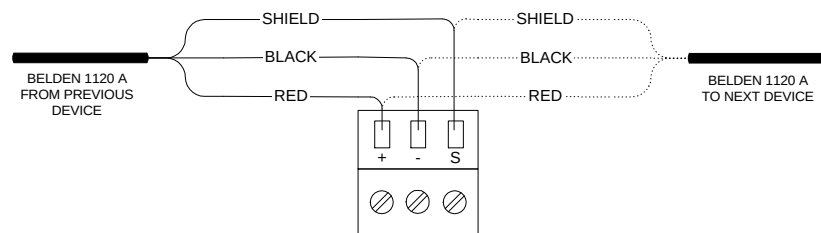


Ethernet connection with mixed mode string using a "T-connected" Enercept Display Interface



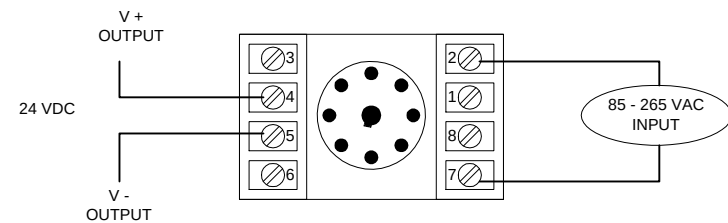
DETAIL A

BELDEN 8723 CABLE TERMINATION AND BELDEN 1120A CABLE TERMINATION
ALONG WITH POWER CONNECTIONS AT AN **ENERCEPT NETWORK ADAPTER**, TYPICAL



DETAIL B

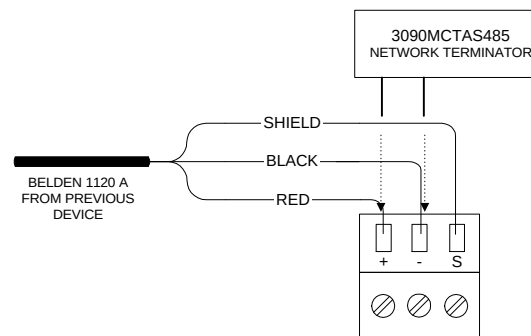
BELDEN 1120 A CABLE TERMINATION AT
ENERCEPT METER, TYPICAL



DETAIL D

POWER SUPPLY CONNECTIONS
3090 PS24

FOR **ENERCEPT NETWORK ADAPTER** or
ENERCEPT DISPLAY INTERFACE

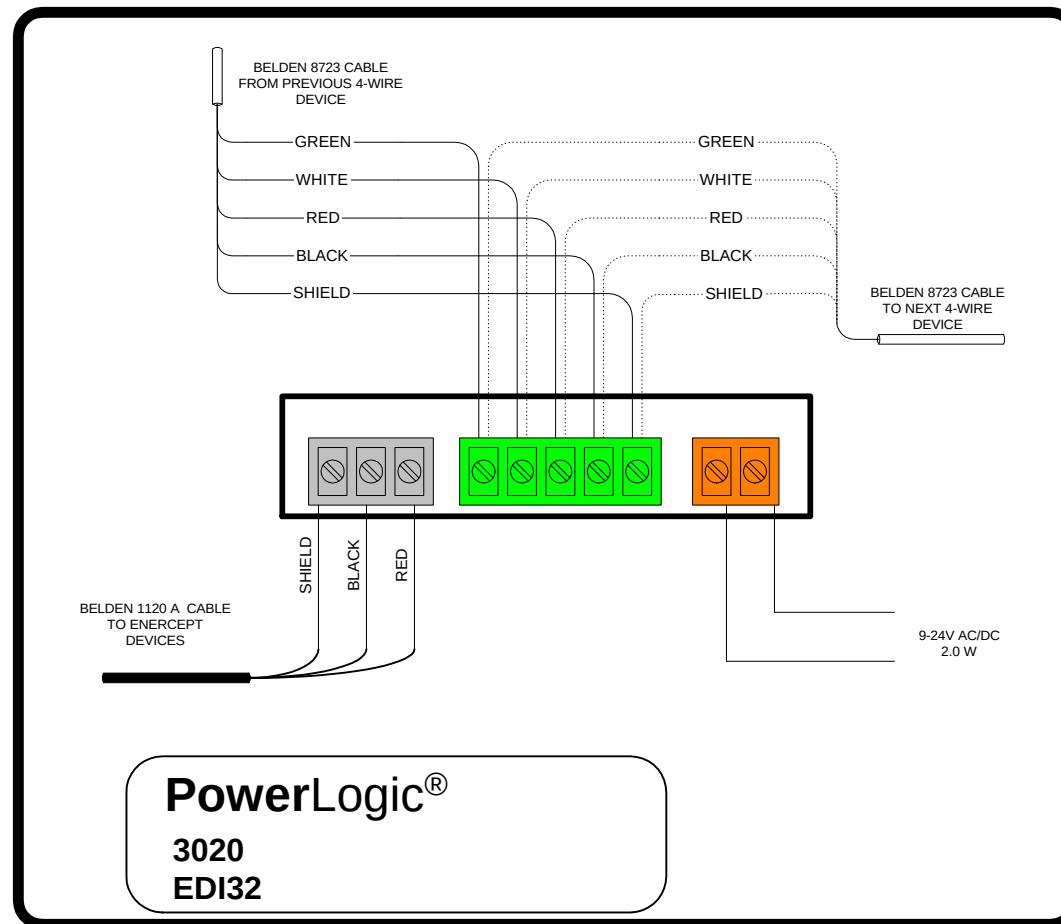


DETAIL C

MULTIPOINT COMMUNICATIONS TERMINATOR
AT **ENERCEPT METER**

On the 3090 MCTAS485,
clip off either the two left
or right pairs of wire

REAR VIEW



Wiring for the 3020 EDI32 Enercept Display Interface
into the middle of a 4-wire string

